Three Strands of Rope

Clyde Sanger

The subject of this booklet is a people on the move. The fact that they are the people of Nepal may make it seem remote and exotic. But is this subject really so far removed from the experience of other people in, say, the European Economic Community or Latin America — or Canada? In the single year 1966 the booming factories of West Germany drew 184,000 Italians northwards as immigrant workers. The population of several major Latin American cities — Rio de Janeiro, Sao Paulo, Bogota and Lima, for instance — continues to grow at headlong pace as peasants crowd in, hoping for wages undreamt of in rural jobs. In Canada the province of Saskatchewan shrank in population by another 10,000 in 1972 as more young people left the prairie farms to find another life in Toronto or Vancouver.

One difference between these three examples and the situation in Nepal is that the Nepalese migration has mainly been from one rural area to another — from the Himalayan foothills down to the plains — rather than an urban influx. But in other respects the similarities stand out. What is to be done to save the areas which these migrants leave from becoming stagnant backwaters, reservoirs which are drained of their most resourceful people every year? How does a government persuade some of its best trained and privileged citizens to work in these "sending" areas, or else train others with appropriate skills for those areas? How does a country achieve any sort of balance between regions in its national development? These questions face planners every-

, a universal story.

"The mountains also shall bring peace: and the little hills righteousness unto the people. He shall be favorable to the simple and needy...There shall be a heap of corn in the earth, high upon the hills."

It is not only the psalmist-poet in West Asia who lifts his eyes to the hills. In Nepal it is impossible not to do so. No doubt, the visitors tend to overdo things. After a long breathless gaze at the great northern battlements that stretch 300 miles from Dhaulagiri to Kanchenjunga, they seem to be able to talk about nothing except the high Himalayas and the people who live on their slopes. At the annual general meeting of the Nepal Britain Society one December evening in Kathmandu, the chairman of the activities' sub-committee, Giridhar Lal Manandhar, offers a little self-criticism as he ticks off the names of speakers who met the association in 1972. Chris Bonnington, Sir John Hunt, three or four others. "Fittingly, or should I say oddly, all our talks have been by mountaineers," says Mr. Manandhar and raises a laugh. Well, not quite all their talks. They had also listened to a professor who came all the way from the University of London, and lectured to this audience of expatriate Britons and aristocratic Nepalese about life among the Sherpas.

Obviously, there is a great deal more to Nepal than the white mountains and a famous brave hill-tribe. Writers for the Population Council will tell you that "there are at least 75 major ethnic groups and 50 languages among the approximately 12 million people".[1] An earlier writer, whose job was to press an ancient but perhaps more effective method of family planning, ranged widely if bluntly in his description of Nepalese tribes: "Chhetris are to be found in all jillas of the area, but those from the Tahsil of Gulmi probably make the best soldiers. Tamangs of a very good type are found in North Gorkha and No. 1 West, but must be carefully selected for enlistment."[2]

1 *"Nepal" by Daniel Taylor and Rita Thapa; Country Profiles, The Population Council Inc., April 1972.*

2 *"The Handbook on Gurkhas" by Colonel B.V. Nicholay; H.M.S.O., 1915.*

That is the irksome, swaggercane language of an army recruiter. Yet again such a man was looking to the hills. The Chhetris, after all, trace their ancestry back to Brahmans who fled from the Moslem invasion of north India in the twelfth century and found sanctuary in the hills of Nepal. And it is out of those hills that 200,000 young men streamed to join the Gurkha regiments in the 1914 war, and 160,000 of their sons marched down again after 1939 to fight in Burma and Assam. Even today, the $4 million which comes yearly into Nepal in the form of Gurkha pay and pensions is as important a boost to their country's economy as the remittances which African mineworkers, self-exiled in Johannesburg and Kimberley, send back to their families in Lesotho and Malawi.

Much also, of course, has been written about the Kathmandu Valley and the three historical cities grouped closely together there: Kathmandu, Patan and Bhadgaon. The Valley has drawn out the religiousness in men, from the earliest days of the Buddhist hilltop shrine Swayanbhunath that has overlooked the holy Bagmati River for

2,200 years, down to modern times and the western "hippies" who post up on ancient walls in Kathmandu their invitation to everyone to attend "A groovy Happening after the monsoon, a Revival electric rock concert". It has also drawn out the ambitions of great dynasties, first the Gorkha kings and then the Rana regime, and some extra energy from ordinary farmers. Until recently no other part of the temperate Nepal Midlands — that series of saucers bounded to the north by the Himalayas, to the south by the Mahabharat Range, and broken up by gorges and the Himalayan rivers running south to the Ganges — had been cultivated with much profit. No wonder that the people of the Valley used to refer to their own parochial 300 square miles as Nepal. Nowhere else counted.

Certainly, nobody seemed to think or write very positively about the plains of Nepal. It is a surprise to drive south down through the hills and find that there is a belt of jungle and swamp-land, 20 or more miles wide and running the whole 525-mile length of the border with India. There are hints, it is true, around Kathmandu of this great area called the Terai. There are gaudy yellow posters advertising the enterprise of an American businessman-anthropologist who has organized daily flights to "Tiger Tops Jungle Lodge: ride on elephants thru the jungle viewing and photographing game animals". And there is, hung rather suggestively on the corridor wall outside some bedrooms in the Shankar Hotel, the horn of a great Indian rhinoceros who once plodded through those jungles. But it is still a shock to get a glimpse of level miles of mango orchards and sugarcane and paddy-fields, of the broad East-West highway running straight for 200 miles already in these flat plains, and even more of the sign-board at Simra airfield which tells you that the altitude is only 600 feet above sea-level.

If the Terai presents this wholly new horizon, with a true promise of cereals and fruits in plenty and the development of towns, based on agricultural prosperity, why have most men's eyes been so steadfastly lifted to the hills? Why, according to the 1961 census figures, did nearly two-thirds of the population live either in the mountains and hills or else in the plateau-saucer

of Kathmandu Valley? Were they all masochists or romantics that they denied themselves a harvest of modest wealth down below?

Romanticism being a luxury very few Nepalis can afford, the answer is a hardheaded one. For centuries the Terai has been the home and breeding ground of malarial mosquito, and literature is full of references to this hazard. When the Gorkha king Prithwi Narayan invaded the Valley of Nepal in the 1750s and besieged Patan and Kathmandu, the leaders of these principalities appealed to the East India Company for help; but the relief force that was sent under Captain Kinloch "was stopped by swollen rivers and the deadly malaria of the Terai, and never actually encountered the Gurkha troops".[3] The malarial areas spread far outside the Terai to places like the Surkhet Valley which is couched in the far western hills between the Mahabharat Range and the Himalayan foothills at about 1,800 feet. In that valley, "an attempt at settlement was made in 1889 but, because of endemic malaria, Surkhet served in the main as a penal colony to which criminals were sent to serve out their sentences while engaging in agriculture. Only in 1966, with the eradication of malaria, have settlers flocked to this valley".[4] A score of other quotations might be cited to show over how long a time and how vast an area the mosquito held sway, a far more effective conqueror than any warrior king. But perhaps the most telling way in which this point can be made is to describe the great migration movement that has taken place since malaria was virtually wiped out in a great eradication campaign mounted by the Nepal Government with the help of the World Health Organization and USAID.

The campaign began in 1958, at a time when malaria afflicted two children out of three in the Terai, and

[3] *"Nepal and the Gurkhas", by Col. R.G. Leonard; British Ministry of Defence, 1965. p. 26.*

[4] *"Preliminary Report on Regional Development Areas in Nepal" by Dr. Ferdinand E. Okada; National Planning Commission, 1970. p. 83.*

one child in three in some hill areas. Success can be measured by the figures from the report of the eradication operations in 1971. During that year blood smears were taken from 1,139,000 people and only 2,778 of the slides showed evidence of malaria — a "positivity rate" of 24 people in 10,000. By then, four-fifths of the original malarious area had been brought under control (the western hills still remain to be tackled properly) and of the 22,000 villages in this part only 400 were listed as "malaria foci", where the cycle of fly biting a malaria sufferer and transmitting the sickness to another human had not been effectively broken.

It has meant a massive concentration of resources. More than one-quarter of Nepal's total public health budget has been going on malaria eradication. In 14 years some $11 million has been spent on the campaign, nearly two-thirds coming from USAID funds (although the Nepal Government has recently been paying half the costs). A small army of nearly 4,000 permanent workers, and even more temporary workers recruited for the months of spraying between March-June and October-December, tour the lower hills, the still forested areas of the Terai (the trickiest part) and the cultivated plains. They have titles such as Inspectors, Supervisors and Visitors, and in 1971 they visited, inspected and sprayed 1½ million homes and structures. They have evolved a pleasingly simple jargon of their own, and send back reports detailing the IRD (indoor resting density) and MBD (man biting density) of the mosquitos they encounter. In 67 malaria laboratories and sub-laboratories the reports and slides are checked (and as a matter of routine 10 percent of the negative slides are rechecked); and it is the organization's boast that there is at most a week's time-lag in the Terai, and two weeks in the hills, between the first taking of a blood-slide and the start of radical treatment of a confirmed malaria case with chloroquine and primaquine.

No one, however, can yet afford to rest on his laurels. There is a continuous importation of malaria cases from Assam and Nagaland; the constant migration of Nepalese within the country complicates the business of control; and one of the five species of mosquito in the area, *Anopheles annularis*, has been condemned in reports as "a newly incriminated vector" who moreover finds little difficulty in surviving all the DDT sprayed on him and may have to be tackled with malathion. Health officials, facing a possible budget cut, warn that, if spraying is stopped in certain areas, the density of mosquito vectors can build up to pre-spraying levels within two or three years. But they hope that a further 10 years work, ending with a fully integrated health service that includes malaria control, can let the campaigners claim final victory.

This point is worth stressing further. It may sound paradoxical to suggest that the key to a final victory over malaria in Nepal is to develop the infrastructure of an integrated basic health service. But, until such a service is built up, there is no regular body that can take over the maintenance phase of the program. About 80 percent of the area that was originally marked as malarious is now in the "consolidation phase", but the maintenance work is having to be done by a separate and expensive cadre whose real job is to attack the areas still affected, rather than to hold the ground gained. The

cost of maintenance work has upset the whole economics of the eradication program, since it was based on the assumption that by 1970 the maintenance work would be taken over by the regular health services. That target is now set back several years.

PEOPLE ON THE MOVE

The clearing of malaria from the Terai did not suddenly alter the predispositions or habits of Nepalis. Rather, it confirmed their predispositions in a concrete way. They, more than most, have long been a people on the move. Many have moved permanently: nearly three-quarters of the population of Sikkim, and one-quarter of the people of Bhutan, are of Nepalese origin.[5] Others are migrants by virtue of enlisting in Gurkha regiments. During the 1960s at least another 80,000 Nepalis emigrated to India every year, usually to return within five years.[6] But the astonishing figure is the number of

[5] *P.P. Karan "Bhutan"; Lexington 1967. V.H. Coelho "Sikkim and Bhutan"; New Delhi, 1971. p. 3.*

[6] *Taylor and Thapa, p. 3*

Nepalese peasants who each year used to stride out of the hills in the winter months with produce to exchange at the Indian frontier for salt, some manufactured goods and a few rupees. Toni Hagen, a Swiss geologist who trekked all over Nepal between 1951 and 1962 and often watched the trickle off many hillsides become a human river down six principal trade routes, estimated that 2 million Nepalese — or nearly one-quarter of the whole population — joined this annual flood. [7]

In among this flood from the hill districts went those men who sought seasonal jobs in the lowlands during the winter months in which they could hope to escape malaria. From two districts in the Kosi sector in the eastern hills — Sankhuwasabha and Bhojpur districts — it is estimated that 45 to 50 percent of the adult males trekked south for about three months each year to work in the Terai (or across the border in Assam) in road construction or other unskilled labor; while from districts in the western hills — Dailekh and Jumla — between 25 and 30 percent used to head south. [8] These people from the west did a variety of jobs: watchmen in Indian cities, forest workers, farm laborers, porters shuttling back and forth to take ghee (clarified butter) south and merchandise north. During the 1960s some found work in a job that could change all their lives — as malarial sprayers. More commonly than in the east, apparently, the western migrants would move as a family group. But the main point is, for many hundreds of thousands of Nepalis whose home was in the hills, the lowlands and the Terai were a familiar place: they knew its advantages, as well as its one great handicap. And, when that handicap was removed, it is not surprising that so many people moved their permanent home so fast.

The shift in population is best seen in a single table:

	Mountains & Hills	Kathmandu Valley	Terai & Inner Terai	Nepal
Population 1961 [9]	5,524,000	461,000	3,425,000	9,410,000
%	58.7	4.9	36.4	100
Population 1971 [10]	6,459,000	587,000	4,293,000	11,339,000
%	56.9	5.2	37.9	100

[7] *Toni Hagen "Nepal"; Rand McNally, 1971. p. 122.*

[8] *Okada; pages 22 and 79.*

[9] *National Planning Commission,* Fourth Plan. *p. 283.*

[10] *1971 Census, Central Bureau of Statistics, HMG of Nepal.*

The impressive figure is not so much the change in proportions: nearly 2 percent less of the population living in the mountains and hills at the end of the decade, and 1.5 percent more living in the Terai and Inner Terai.[11] It is when that swing is expressed in absolute terms that the impact of the movement southwards is really sensed. For in those 10 years, by these statistics, an extra 868,000 people have come to make their homes in the lowlands.

It should be said at once that not all that increase is of Nepalese. The first impetus to develop the Terai came from the Indian side during the years of British rule when railways were pushed up to the border to help exploit the forest resources in northern India. The towns astride the trade routes in southern Nepal — Biratnagar, Birganj and Nepalganj — are closely linked with the Indian railheads only two or three miles across the border. Many would say these towns, particularly Biratnagar with more than 100 industries, face more towards India than they do to Nepal.

[11] *The valleys between the hog-backed Siwalik range and the higher Mahabharat range are called the Inner Terai.*

Three factories in Biratnagar produce stainless steel utensils, and a textile mill every day turns out hundreds of nylon socks and shirts, for the north Indian market; and they get their materials (the stainless steel plates, the polyester yarn) from Japan or Europe. Many of the factory workers are Indian. Driving into Birganz a visitor gains the same impression of entering an Indian city, with square architecture and flat shopfronts. The clearing of the southern forests is in the hands of Indian contractors; and probably the fastest growing sector of the Nepalese economy is transportation which is so thoroughly dominated by Indians that most trucks you see, even in Kathmandu, have a warning to any overtaking driver painted (with accompanying flowers) in English: "Horn Please". It would be impossible to get an accurate figure of the number of Indian citizens permanently living in Nepal, but what is clear is that there are hundreds of thousands of them, and many thousands came north during the 1960s as the malaria eradication campaign took effect.

The Government of Nepal has taken modest measures to redress the balance of migrants moving into the Terai. It has a scheme to settle 10,000 families over a 10-year period, offering them agricultural credit and World Food Program supplies while they are getting established. The scheme is open for Nepalese hill families, not for Indians from over the border. By itself, of course, the government measure is too small to effect real change in the population of the Terai. But it has helped to prime the southward movement of more hill-people who may have family connections with the government-aided settlers, or who see an opportunity to establish themselves independently by providing services for these settlers.

PRESSURE IN THE HILLS

But one should also look closely at the figures on the other side of the table showing population shifts 1961-1971. While the population of the Terai and Inner Terai has increased by 868,000, the population in the hills has grown even more. Even though nearly 2 percent less of Nepal's total population now live in the hills, in absolute terms (which is what counts,

when there is a finite number of acres available for cultivation) the hill population increased by some 935,000, or about 17 percent.

The problems of population pressure in the hills have been underlined by many writers. While a visitor is bound to marvel at the labor that has gone into terracing the steepest of hills, in order that a farmer may plant a few more rows of potatoes or maize, there is a clear limit to the acres that can safely be terraced or to the area of hill-forests that can be cleared for cultivation, even when cultivation takes place as high as 9,000 feet. Two examples of these warnings will suffice. In the central and southern parts of Sindhupalchok district, which runs northwest from Kathmandu Valley to the Tibetan border, one geographer has noted "a continuous devastation of the forest cover by men and animals"[12] : there was no attempt to exploit the pine and mixed forests commercially; there was simply a toppling of the trees to provide some more acres for food for more people.

[12] *Wolf Donner in Himalayan Review, Special Issue, 1968. p. 18.*

Further west, in the hills of Gandaki sector to the north of Pokhara, the hill-people have stripped the forests to build houses and small bridges, to get firewood for themselves and to provide leaves as fodder for their cattle. ". . .deforestation is a serious problem, leading to ever-increasing erosion of the hillsides. . .the danger is that erosion will become cyclically uncontrollable",[13] and the amount of agricultural land will decrease.

At present, of the total area of Nepal under cultivation, only 27 percent lies in the hills and mountains, while 70 percent lies in the Terai, even though the Himalayan and hill region makes up two-thirds of the total land area. The gap in cultivation is likely to widen. More land in the Terai will be brought under cultivation, while the limit may soon be reached in the hills — and, if erosion is not checked, the acreage there may decrease. The contrasts between nearby districts is sometimes striking: the size of Morang and Bhojpur districts is almost identical (1844 and 1839 sq. kms.), but Morang in the eastern Terai has "five times

[13] *Okada, pp. 54-55.*

more land under cultivation and 30 times more land under paddy"[14] than Bhojpur which lies a few miles to the northwest, but in the hills. Again, the yield per acre is noticeably higher in the plains, which are fertile with the alluvial deposit of the great rivers that run south from Tibet, and which receive a generally higher rainfall than the hills except in the western Terai. In the eastern Terai the per capita income is three times that of the hill population, and the same disparity is probably to be found in other regions.

From these facts and statistics the Government of Nepal could really come to only one conclusion: the population of the Terai is bound to increase through further spontaneous migration, but it cannot sustain its present rate of increase for much longer; the population in the hills must, therefore, be stabilized and many more opportunities for a better life must be offered to those prepared to stay there.

A new strategy of regional development was devised, which owes a great deal to the vision of the young King. Succeeding to the throne of Nepal on the death of his father in January 1972, King Birendra at once began to show vigor and initiative in pressing the need to bring development to the whole of his kingdom. The palace life of Kathmandu was definitely not the bounds of his horizon. He set out to see for himself the hardships under which Nepalese lived in the remoter districts; and he discussed endlessly with his ministers the problems of the hill people he had met. These discussions always concluded with one fact standing out plainly: Nepal's development problem lay most heavily in the hill areas.

[14] *Ibid., p. 17.*

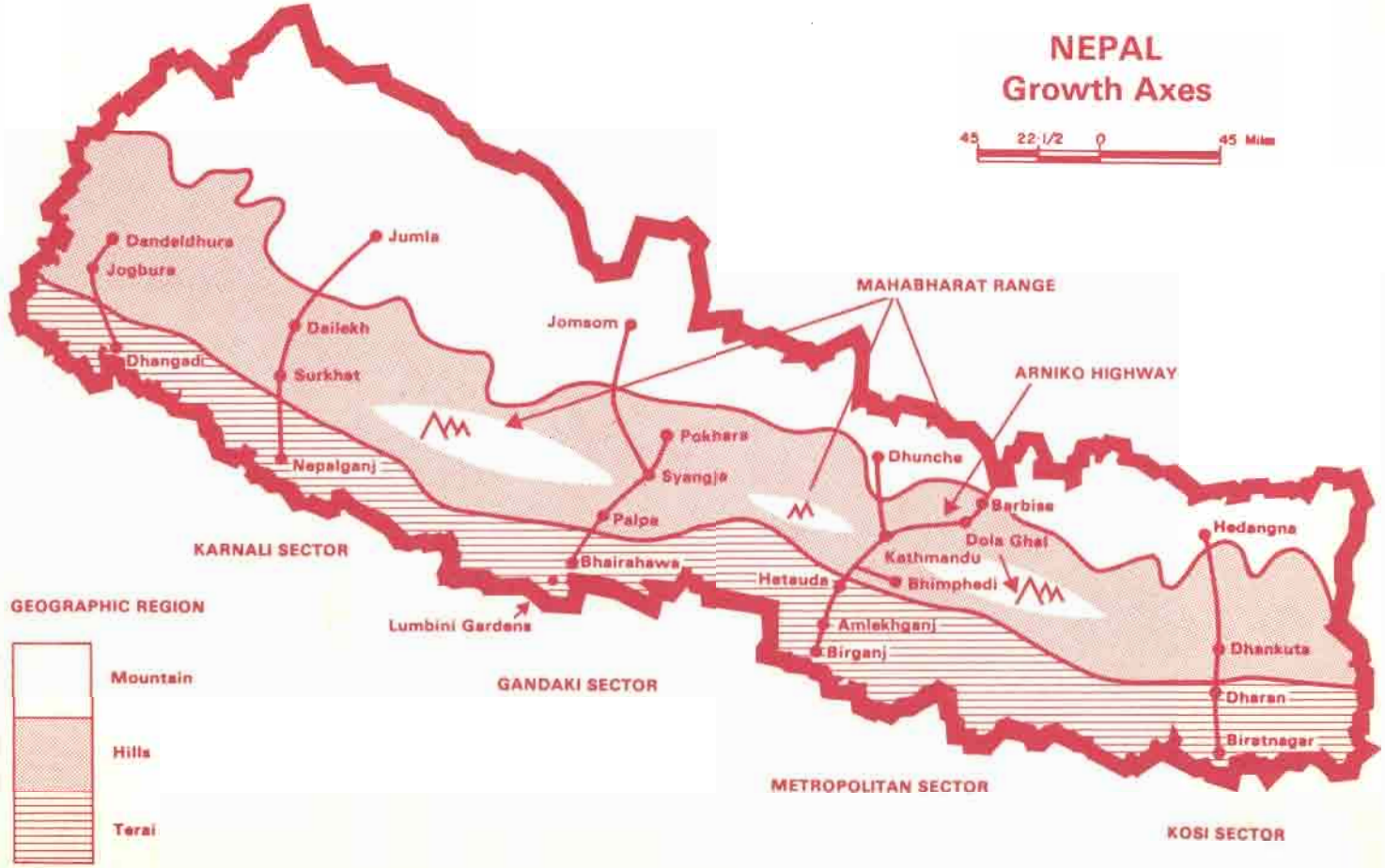
THE NORTH-SOUTH CORRIDORS

Out of these conclusions came the plan for four "growth corridors", running north and south in the following sectors:

1. Kosi: from Biratnagar up to Hedangna.
2. Metropolitan: from Birganj up to Kathmandu, and then forking northwest to Dhunche, northeast to Barbise, in a growth axis shaped like the letter "Y".
3. Gandaki: from Bhairahawa through Pokhara to Tukche.
4. Karnali: from Nepalganj up through Surkhet to Jumla.

The plan is to build motorable, or at least "jeepable", roads up each growth axis, and to stimulate four or five or six "growth centres" along each corridor.

To a visitor from Canada this emphasis on improving north-south communications seems, at first sight, suicidal. If in the 1880s Canada had built railways and roads southwards, from Winnipeg and Edmonton and Vancouver, down to the United States border, rather than push the Canadian Pacific Railway westward across the empty prairies and through the Rockies to the Pacific Ocean, it would have delivered all of western Canada into American hands. Isn't this what Nepal is doing? a visitor asks. Won't the north-south corridors drain people out of the hills more quickly than ever, first of all down into the Terai and then, when that area becomes overpopulated, spilling them over the border into Indian cities to fill the


NEPAL
Growth Axes
45 22 1/2 0 45 Miles
Dandeldhura
Jogbura
Jumla
Dailekh
Dhangadi
Surkhet
Nepalganj
Jomsom
MAHABHARAT RANGE
ARNIKO HIGHWAY
Pokhara
Syangja
Palpa
Bhairahawa
Lumbini Gardens
KARNALI SECTOR
GANDAKI SECTOR
Dhunche
Barbise
Dola Ghat
Kathmandu
Bhimphedi
Hetauda
Amlekhganj
Birganj
Hedangna
Dhankuta
Dharan
Biratnagar
METROPOLITAN SECTOR
KOSI SECTOR
GEOGRAPHIC REGION
Mountain
Hills
Terai

more menial jobs? Isn't the "growth axis" scheme simply a recipe for disaster?

Happily, you will not find a Nepali (whether in government, or journalism, or at the university) who fears it will bring disaster. Instead, they will explain that the proposed roads will allow food from the grain-surplus areas to move north much more rapidly. An FAO estimate is that 150,000 tons of grain are carried up into the hills each year from the plains, on the backs of men and women who have come down and earned wages to buy it. The journey north, said Sven Pellback, the FAO country representative, may take up to a month, and on average it takes more than two weeks. "A very laborious process," he commented. The roads, too, will bring the hill-people closer to other services: to better health facilities, and to markets for new crops and materials which they will be encouraged to produce; I will say more about these points a little later on. Finally, in refutation of the "drain-away" argument, you will be told that roads *are* being built east and west to link the four corridors together: the East-West highway running the length of the Terai and, further north, the road connecting Kathmandu Valley with Pokhara. In effect, the corridors complement the highway.

One can write rather glibly about road-building when sitting in Canada in open country, with only gentle-contoured hills on the horizon. None of these growth corridors in Nepal is more than 145 kilometres long, from northern to southern terminus — as the crow flies. It all sounds comparatively simple. . .until you get a glimpse of the ranges of hills and the depths of valleys that these roads have to snake over and penetrate.

The Arniko Highway, which runs east and then northeast from Kathmandu through Barbise to the Tibetan border, is a mild introduction to Nepalese roads. The Chinese technicians, who completed it in 1966, plotted its route along the Panchkhal Valley and then up alongside the course of the Sun Kosi River. Before descending to the valley, it offers spectacular views of Langtang and the central Himalayan peaks; but you can bowl along that road as unconcerned with natural hazards as you might go on any good highway in North America or Europe. The Tribhuvan Rajpath, running south from Kathmandu to the Indian border beyond Birganj, is quite another matter. From Kathmandu, at 4,100 feet, it drops 1,000 feet and then climbs in coils around the hills to a peak of 8,160 feet to surmount the Mahabharat range, before falling away to the Inner Terai and then gathering itself for a final leap over the Churia hills to Amlekhganj and the plains. Toni Hagen, who often walked over the Mahabharat mountains, has written of this "steep and jagged country. . . gorges of a wild and enchanting beauty. . .dense forests of oak and rhododendron".[15] A traveller today must wonder at certain points how the Indian Army Engineers found their way through: from one hillside it is possible to see, miles ahead, a series of seven hairpin-bends that look like a set of exclamation marks in which the engineers indulged, to cap their remarkable achievement. In the far western hills, the obstacles are as great, to judge from a newspaper reporter who travelled 52 kilometres along the

[15] *Toni Hagen. p. 52.*

road from Dhangadi towards Dadeldhura: "massive landslides, like of which I had never seen before, have virtually buried and road beyond. It was impossible to cross this and go further up." But he praises the competence of the Nepalese technicians tackling this first major road project independently of foreign experts, and adds: "Give them the tools, and they are ready to deliver the goods".[16]

[16] *Shyam K.C., in "The Rising Nepal", 12 December, 1972.*

BY ROPE OR ELEPHANT

His patriotism should not obscure the difficulties ahead. The geographers who helped prepare the "Preliminary Report on Regional Development Areas in Nepal" have written several salutary passages on this subject. Two examples might be quoted. Referring to the northern part of the Kosi growth axis, they write that the trails are difficult because of the "many streams and rivers which must be crossed by bridges of trail planks or thick strands of rope slung from bank to bank. Great loss of man and property is reported at these crossings, believable when the main trade route to northern Sankhuwasabha leads across three strands of rope over the Arun River to link Num with Hedangna."[17]

Even in the lowlands, transportation can be a tough proposition. From Bhairahawa (the southern point of the Gandaki axis) it is only 20 kilometres southwest across the Terai to Lumbini Garden, the birthsite of Gautama Buddha and obviously a place which could attract many thousands of tourists and pilgrims. But the geographers warned in 1970: "The direct route to it from Bhairahawa is a very rough road. Jeepable only in dry weather when the journey takes 50 minutes; in wet weather, but not height of monsoon, the journey is best undertaken on foot (6 hours) or by elephant."[18] During the monsoon, the paved road up from India is flooded, and the Garden is isolated.

But the roads already built have brought great changes, and turned some former centres into virtual ghost towns. Bhimphedi was once a town of

[17] *Okada, p. 21.*
[18] *Ibid., p. 64.*

importance, since it sat astride a place where three rivers join beneath the Mahabharat range: to the north a foot-trail leads over mountains to Kathmandu, to the west and then south runs a motorable road to the Terai. It was the transshipping point where porters eased their burdens off their backs and put them on buses or trucks to go south. But Bhimphedi has been bypassed by the Tribhuvan Rajpath, running 6 miles to the west and providing a road all the 120 miles from Birganj to Kathmandu. Now the bus garage at Bhimphedi is in ruins, and the travellers' hostel with its handsome pillars is deserted. In the middle of the stony riverbed we found a man living in a grass hut, his home for nine months every year until the monsoon fills the river. He said a whole bazaar used to be set up along the riverbed near his hut until a heavy flood in 1956; floods in some subsequent years drove all the shopkeepers off to the Terai or to Hetauda, a boom town on the new road. He stayed on in his precarious homestead, he explained, because he had land in the Terai and friends in Kathmandu — and he liked to live halfway between!

A HOME-MADE WELCOME

For a country which had a closed border policy until 1950, Nepal is remarkable for the way its people can adopt some foreign tastes or machines — and stamp it with a Nepalese grin.

Two random examples: a proper weakness for Scotch Whiskey and certain blends (for instance, Vat 69 and White Horse) is expensive; so those who cannot afford the imported stuff make do on the Nepalese substitute brews, Kat 29 and Red Horse.

A popular travel poster features (of course!) a panorama of the Himalayan peaks and adds the unlikely sales slogan "Get there by helicopter!"

They have been resourceful, too, in adapting to tourists. The opening of Nepalese borders was immediately preceded by the removal from power of the Rana family, several of whom had had the foresight to build palaces in Kathmandu that proved to be easily convertible into hotels and restaurants. Poinsettia and honeysuckle outside the door, stained glass around the dining-room and plaster cherubs springing from the ceiling — how much more atmosphere does a tourist require?

In the vegetable market the kids are well-trained. They take up a man-of-the world pose, with a cigarette stuck in the mouth, as soon as a camera is unbuttoned; and they have an unending supply of Buddha medallions for sale, all of them "over 100 years old".

Even King Birendra's palace joins in the image-making. His sentries stand in front of orange gateposts, that are picturesquely crowned with dollops of plaster snow.

Amlekhganj is another depressed town, although it lies directly beside the Tribhuvan Rajpath. It was founded by slaves whom the king freed in the late 19th Century, and it prospered because it was the northern terminus of the Nepal Government Railway. But the trains running through the Terai 29 miles to Raxaul and India used to potter along at little more than 5 mph, and trucks hurrying past during the past 10 years have taken over all the trade in passengers and goods. You will find the redbrick station now turned into a post office that does little business, goats feeding off the grass and wildflowers which cover the railway lines, and probably a squatter's tent pitched on the platform.

Other towns, by contrast, are booming. Hetauda was a small jungle village 15 years ago. Now since it sits at the T-junction where the 50-mile road that has opened up the Rapti Valley for settlement meets the Tribhuvan Rajpath. In consequence it has grown to a population of 15,000, serving the thousands of settlers along that valley and providing an overnight stopping place for travellers heading south to the Terai. It has an industrial estate

pegged out, and a textile mill is to follow the brewery already established. The morning air is full of trucks starting up, and the newly-opened Rapti Hotel does a roaring trade in such cosmopolitan delicacies as "French chopsuey", "American chicken sweets and sour" and buffalo steaks.

In western Nepal other changes are afoot. A reporter making his first visit from Kathmandu in December 1972 began his story this way: "It was a quite unfamiliar sight. A jeep had just been unloaded from an aeroplane, and was now running through the dusty road. A swarm of children were running after the vehicle. This sunny December day will long be remembered in Surkhet because it was the first time that a motor vehicle was running through Surkhet Valley, although it had been connected by air service with other parts of Nepal for the last couple of years. I was aware that I was watching events that would rally forces of development in the backward and long neglected Far Western part of Nepal." [19]

[19] *Prakash A. Raj "Some Impressions of Surkhet"*, The Rising Nepal; *14 December, 1972.*

The eradication of malaria in the Surkhet Valley has brought some changes that show the ugly side of development. Before 1967 the valley was only inhabited by the Tharus, and the hillpeople who visited during the daytime took care to climb up again before evening to avoid the mosquitos. Now many of them have moved permanently into the valley, and the somewhat despised and low-caste Tharus have been pushed out into the forests to the south. [20] There are also dangers of haphazard urbanization and a regular food deficit (instead of previous large surpluses) as the valley fills up.

The Tharus are not alone in suffering from, or failing to benefit from, development. In the Metropolitan sector the Tamang-speaking people tend to live at higher altitudes, with little land, either in the hills north of Kathmandu or in the Mahabharat Range to the southwest of the capital. When malaria was eradicated and opportunities began opening up in Chitwan and Makwanpur districts with the settlement of 5,000 farm families in Rapti Valley and the growth of Hetauda, the Tamang could have expected to benefit equally with other tribes. But instead they have ended up forming a laboring class — porters or maintenance men on the new roads, agricultural laborers in the fertile farm valleys — while upper-caste Nepali speakers dominate the new social and economic structures. [21] The dangers of social polarization in new settlement areas of the Terai and the midland valleys, the polarization between rich and poor, educated and uneducated, has been noted: [22] it may not be as marked as in other countries, but the trend is one which any planner concerned with regional development in Nepal has seriously to consider.

[20] *Okada, p. 77.*

MORE GRAIN, OR MORE CASH

If those are some of the achievements, and some of the problems, in opening up the lowlands of Nepal, what are the problems that need to be tackled in the hill areas if the population

[21] *Ibid., p. 39.*

[22] *Ibid., p. 91.*

there is to be stabilized and services to them are to be expanded?

The basic need, surely, is for the hill peoples to be able to grow enough grain and vegetables to feed their increasing population or, if this is impossible in some districts, to earn in other ways enough income to buy the food from outside.

According to the government's agricultural statistics, Nepal had an overall surplus in grain production of 294,000 metric tons in 1970-71. This, however, is not really a large surplus on total production that year of 3,480,000 metric tons; especially since the extra amount of cereals grown each year since 1964 has lagged behind the population growth rate.[23] So that, unless the surplus increases in the years ahead, it may soon be eaten up by the extra children being born. But several experts believe that, with improvements in irrigation, production in the Terai will increase greatly.

What is more worrying, therefore, is the imbalance of production. Of the country's 75 districts, 34 of them had a deficit between what they required for consumption and what they produced themselves, while 41 districts had a surplus. These figures were based on an assumption that the people in the remote hill areas, "where food shortage is perpetual", had drilled themselves to a smaller requirement (140 kilograms per person a year) than the people in the affluent Terai where requirements were calculated at 190 kilograms per person. Some of those 34 deficit districts have a serious shortage of food grains, ranging up to 12,000 metric tons in a district of 200,000 people.[24] The regional development along the four growth corridors will certainly ease the food problems of some of these deficit districts (Palpa and Syangja districts, for example, on the Gandaki growth axis, Jumla on the Karnali axis, and Dhading district on the Metropolitan axis). But there are inevitably other hill districts (Khotang in the east, Rolpa and Achham in the west) which remain remote from any axis or from the spin-off from any growth centres planned along them, and yet have serious problems of grain shortage. Presumably the only solution for people in these districts will be the old, ad hoc measure of seasonal migration in search of wages to buy food which can be laboriously carried home on their backs.

Now that the first excitement about developing the Terai is settling down, the Nepalese planners and the foreign donors are turning their eyes back to the hills, and trying to think of new ways in which the hill-people can increase their income, break out of the problem of generations of debt and therefore decide that a better life can be achieved while remaining in the hills, rather than trickling out down into Kathmandu Valley or the plains.

A leading spirit in this move is Dr. Harka Gurung, a geographer who is Vice-Chairman of the National Planning Commission and who himself comes from a minority tribe in the central hills of Nepal west of Kathmandu. He has pressed hard for acceptance of the north-south corridors, and of development of these areas as an integral whole — in other words, of regional development. The Planning Commission suffers from being only

[23] *Agricultural Statistics of Nepal, July 1972. pp. 1, 19 and 78.*

[24] *Ibid., pp. 74-79.*

an advisory body, dependent upon the officials in other departments (Agriculture, for instance, and Finance) for the implementation. But it has the support of the 28-year-old King Birendra, who is its chairman and is travelling a great deal around Nepal preaching the need for change and self-improvement with government help.

A visitor to the government secretariat building, Singha Durbar, a former palace famed for its 1,000 rooms, gets a glimpse of this mood if he pokes behind a curtain into an upstairs chamber now labelled the "Development Review Room". Once it was a hall where dancers performed to earlier kings and courtiers seated in the balcony; now it is a map-room with three rings of chairs around an oval table and on regular occasions King Birendra comes to hear the latest reports of progress and problems in developing the country. The huge contoured maps dominate the dark room, and give anyone there a reminder that they are working not just for certain villages or a district, but to bring development to a whole region and ultimately to the entire country.

APPLES, SHEEP AND WATER

There is no shortage of ideas about how to increase the income of the hill-people. As part of help with the resettlement of Gurkha veterans, the British are involved in horticultural schemes. The Food and Agriculture Organization, having channelled in recent years most of its aid (worth about $1 million a year) into the Terai, is now talking of ways to encourage cash crops in the hills: apples are at present imported from Kashmir, but Nepal could at least supply its internal market and at the same time build up exports all over the subcontinent in such crops as walnuts and cashewnuts. Again, couldn't more be done in rearing sheep? Wool is imported from both India and Tibet; the decline in trade with Tibet since 1961 has not had the effect of making Nepal more self-sufficient in wool — but moves toward self-sufficiency could start in earnest now. Critically important is reforestation, to prevent erosion, and this can be combined with proper management of the existing forests.

The hills have another resource — water — which the planners are eager to develop more fully. They want it developed for two uses: minor irrigation and drinking-water projects at village level, simple schemes that are carried out through local initiatives; and small hydro-electric plants (up to 200 kilowatts). These micro-plants can bring villagers a multitude of benefits: pumping water, cutting down the laborious jobs in small industries, lighting the evenings for filmshows and literacy classes. "Most important, the provision of electric power creates a sense of participation in national development, and is the jumping-off point for future socio-economic development and accelerated growth."[25]

But the hill-people cannot feel "a sense of participation in national development" just through a little bit of rural electrification, as long as they are cut off from services provided in other parts of the country. They need bridges that are safe: the "three strands of rope" across the Arun River above Num,[26] and the striking illustrations of ramshackle "catwalks" in

[25] *Okada, pp. 90-91*

[26] *Ibid., p. 21*

Toni Hagen's book [27] show the high risks which hill-people have had to take on the way to markets or to towns on emergency trips. While roads and bridges are being improved, a more dramatic means of reducing or ending isolation in some hill areas is being pressed. It began with the provision in 1971, through a Canadian development loan, of two 20-passenger Twin Otter aircraft which are in the STOL (short take-off and landing) category. Kathmandu airport, soon to have a 10,000-foot runway, is on the jet routes to Delhi and Bangkok. But it is the 30 small STOL airfields dotted around Nepal that will help tie the country together: the Nepalese have been quick to realize this, and signed a contract in December 1972 for three more Twin Otters from Canada.

Roads, bridges, STOL aircraft — these, to a great extent, are external services for they help the hill-people have links with outside places. One all-important "internal service" that drastically needs improvement is the delivery of rural health services. A few figures serve to show the state of health services in Nepal:

Besides a few expatriate doctors working in mission hospitals, there were in 1971 less than 350 Nepalese doctors in the country — or one doctor for every 33,000 persons. There was one hospital bed for every 9,350 persons. But those national figures don't show the imbalance between districts. Some 205 of these doctors were working in the Kathmandu Valley, another 92 were in the plains, and only 44 doctors were living in the 52 hill districts; 32 of those hill districts (with a population of 3,300,000) didn't have a doctor at all. [28]

Of course, there were other medical staff: about 160 graduate nurses (mostly in Kathmandu Valley), 230 assistant nurse-midwives and more than 500 health assistants. Anyone trekking only a short distance into the hills will realize how thinly spread around the villages are health personnel of even the last two categories. One day I and three Nepalese friends climbed for only

[27] *Hagen, plates 69-72.*

[28] *"Graduates in Nepal", a diagnostic study. National Planning Commission, 1972.*

three hours up the hills beyond Dumre after leaving the Arniko Highway at Dola Ghal. In the village of Bhumlutar we were stopped by a farmer who showed us his 4-year-old daughter Nanu, bandaged from wrist to elbow, who had been badly burnt with hot water three days before. There was a health centre in the village but, he said, the health assistant was not due there for another nine days. We went to the health centre and talked with the peon (orderly) who was sterilizing instruments over a primus stove on the earthen floor. He said he had spent hours cutting the bandages off the child's forearm, for the skin was sticking to it, and redressing it with ointment. We told the father he would be wisest to take his daughter into Kathmandu for expert care; but apparently he couldn't spare time for the journey, two hours on foot down the hillside to the highway and then another two hours by bus. He led us into his shady garden, gave us limes and salt, and told us of his eight other children and the harvest he still had to gather.

So how to get better and more regular health services to all the Nanus in the hills? There will never be enough doctors to reach them, and they won't be taken to the doctors. One sensible decision, at least, has been made, as a result of the new educational plan for 1971-76. No expensive medical school, to turn out a few more doctors, is going to be built at Tribhuvan University. Instead, the Dean of the Institute of Medicine, Dr. Moin Shah, is concentrating on the training of health workers at less sophisticated levels. The fashionable phrase to describe the experiment is the "barefoot doctor" scheme. Helped with a grant from the International Development Research Centre (IDRC), he and others at the Institute are taking an inventory of all present health personnel at every level from the MDs to the paramedical workers and the indigenous medicine practitioners. When they know where these people work, what training they've had and how much it cost, Dr. Shah's team will fit these facts to the health needs of the country and Nepal's ability to pay the costs of the most appropriate type of training program. They hope, before two years is up, to have worked out the best kinds of curricula for the training of what may become quite new types of health workers. It is a bold scheme for a small research group to undertake; but, if nothing of this sort is ventured, how will the ugly figures ever be changed? One estimate is that 67 percent of the population die by the age of 15.[29] The hope must be that a new generation of barefoot doctors saves many more of the children of that era.

[29] *Taylor and Thapa, p. 1.*

WHERE HAVE ALL THE GRADUATES GONE?

Nepal is not short of university graduates. An analysis of the 1971 voters' list suggests there were then 10,887 of them. Tribhuvan University, near Kathmandu, has graduated 6,598 students in the dozen years since it was founded in 1959. And there are at least 1,039 women graduates.

It is when you start dividing them down into the subject of their degrees and the districts where they now work that the gaps become obvious. For 61 percent of all these graduates took Liberal Arts degrees, and there are nearly 20 Arts graduates for every medical graduate. Everything is relative, of course: there were 341 medical doctors, but only 33 Veterinary Science graduates — in a country with a livestock population of more than 14,000,000 animals.

Not surprisingly, the greatest number of graduates (60 percent) stay in Kathmandu Valley. Five times as many moved into the Valley from outside as left Kathmandu to take jobs in the hinterland (1,610 to 336); two-thirds of those leaving the metropolis headed for the Terai plains. The Eastern (Kosi) sector where there are several colleges is, after Kathmandu, best-stocked with graduates: it has 21 percent of the total. On the other hand, the Western (Karnali) sector with 21 percent of the population has only 4 percent of the nation's graduates. So which are the most developed parts of Nepal? That's right: Kathmandu Valley and the Eastern sector. And the least developed? The Western sector and the hills.

The National Planning Commission, which has done an exhaustive study of the 1971 figures, concludes:

"Graduates may be posted to remote areas by administrative decree but their deployment, retention and utility will very much depend on the supporting activities and level of development in the area. The graduates, however rural their background, are a product of urban environment. Since there is more scope for attracting graduates into urban areas, efforts should be made to develop towns in different regions. More towns are necessary not only for siphoning off graduates from capital region, but also to provide essential services to other hinterland areas. The towns should be developed as growth centres, with a wide range of social and economic activities. . ."

FOREIGN AID, LOCAL INITIATIVE

In pushing almost all of its plans for development, Nepal has been deeply dependent upon foreign aid. Foreign resources have been supplying as much as 42 percent of the government's total budget, including 80 percent of the resources that are spent on construction.[30] With great subtlety the Nepalese have taken advantage of a situation that could be awkward, being squashed between two big rivals. Most of the Chinese technical assistance has been concentrated in the hill parts of Nepal — the Arniko Highway and other roads and factories. Then it was agreed that the Chinese were prepared to build a section of the East-West Highway through the Terai and close to the Indian border. Word of this soon reached sensitive Indian ears, and Delhi (for all its own financial problems) found itself able in 1972 to make a special grant, the equivalent of $27 million, to finance that section and keep the Chinese away from their frontier. In November 1972 Prime Minister Kirtinidhi Bista visited Peking,

[30] *Agricultural Statistics, p. 114.*

had a 90-minute talk with Chairman Mao, and signed an agreement for four aid projects, including a textile mill. By February Mrs. Gandhi was visiting Kathmandu, talking about aid and more favorable transit terms for Nepalese exports and imports to and from the world beyond India. The other donors are much in evidence in the still small city of Kathmandu, and any morning as you walk or bicycle through the streets, you are likely to see the ambassadors of Britain, or France, or Japan flashing by in their national cars with pennants flying.

They wave their flags and they push their ideas. They pay calls on officials around the thousand rooms of the Singha Durbar, or drive out to the university where the Centre for Economic Development and Administration (CEDA) is set up. Sometimes the schemes that result from such visits are soundly based on the ideas and initiative of knowledgeable Nepalese. One example, which is relevant to the main subject of this booklet, is the CEDA study of two of the four growth corridors — the already prospering Kosi sector in the east, and the much less advanced Far Western or Karnali axis — to produce regional plans that can be integrated into Nepal's fifth five-year plan. The Kosi study is being supported by Britain's Overseas Development Association, the Far Western study by IDRC; but the project was founded on the concepts which Dr. Gurung and others had been promoting for several years, and half a dozen ministries are collaborating with CEDA and the Planning Commission in the work, with only a few expatriate consultants being called on for specialist advice.

Sometimes, on the other hand, the donors try to press their own ideas, against the half-expressed objections of the recipient country — Nepal or any other. Whether or not the particular scheme turns out to be a "success", tensions are liable to grow. Donors have come to talk of a malaise called "aid weariness"; Bhekh Thapa, who was Nepal's Deputy Finance Minister before crossing the line for a time and becoming Vice-President of IDRC, counters that phrase by saying that equally the recipients are suffering from "advice weariness". But, he adds, however severe the tensions in the 1970s between the have and the have-not nations, there is no alternative to international cooperation, restructured so that the have-not nations take the major part in designing the form of that cooperation.[31]

"No alternative to international cooperation", when the gulf between nations is widening. To put this final thought in a Nepalese context, peoples must be bound together — the poor in the hills, the more affluent in the plains — and they must be bound together by something more substantial than the three strands of rope across the swirling Arun River.

[31] *Bhekh B. Thapa. "The Way Between". Address to the Third Meeting of the Canadian Science Writers Association, 23 February 1973. IDRC-011e.*

PROPAGANDA AND FAIRYLAND

Most of the countries which offer Nepal development assistance also run a library in Kathmandu. One way to gain an insight into the national characters, of these donors and of Nepal, is to make a comparison of the propaganda images they present through these libraries and the response they invoke among Nepalis.

In the last weeks of 1972 the *British* tried to make a connection through monarchy (photos of the Queen in tweeds on the 25th anniversary of her wedding). This held nobody's gaze. The *Russians* did better with pictures of Slavic folk dancers and women gymnasts in the Olympics. At the *Chinese* friendship library the pictures ranged from surgical marvels (Yan Hsing-yeh, just fitted with a nylon-plastic artificial throat, phoning up his family) to preventive health measures (PLA workers, together with the masses, wading along a ditch to root out water snails). The *United States* Information Service gave its library windows over entirely to models and photographs of the Apollo 17 expedition.

Who scored the greatest hit wit
Nepalese youth? The followin
excerpt from an essay of a Grade
student, Ajaya Ghimire, may give
clue:

"I dreamt a dream in the later pa
of night. I saw that my friend Rajes
had come to my house. We were goin
to make a space craft. In the dream w
made a space craft. We sat on that an
went to the moon. We had taken som
food also.

"I flew in that space craft so fa
that we reached there within an hou
We got down to the moon from ou
space craft. We travelled there fc
sometimes. Then we took our food. W
put many rocks and stones from th
moon in our bag and put it in our spac
craft. We lived there for two day
After two days we again rode on ou
space craft and came back to earth.

"We landed our space craft direc
to the royal palace. We met to kin
Birendra and naratted all the thing
about the trip to the moon. We gav
him some rocks and stones of th
moon. He thanks us and rewarded on
lack ruppes and one motor car t
each of us. Then we returned ou
home in our car. Rajesh went to th
of Basantpur and I to Battis Putali.
as driving the motor and was
hed near my house.
n the meantime my mother gave
a jerk and my dream was shattered.
pleasant dream turn in the end,
denly vanished in the air. I was not
ne car but lying on my bed. I had
uppes in my pocket. When I naratted
dream to Rajesh he also felt very
h delighted. He was particularly
ghted to hear of the trip to the
on.
While we enjoy a pleasant dream,
forget our anxieties. We roam
ly in the fairyland of the dream. . ."

IDRC-012e

UDC: 954.135

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The International Development Research Centre is a public corporation established by Act of the Canadian Parliament "to initiate, encourage, support and conduct research into the problems of the developing regions of the world and into the means for applying and adapting scientific, technical and other knowledge to the economic and social advancement of those regions, and, in carrying out those objects

(a) to enlist the talents of natural and social scientists and technologists of Canada and other countries;

(b) to assist the developing regions to build up the research capabilities, the innovative skills and the institutions required to solve their problems;

(c) to encourage generally the co-ordination of international development research; and

(d) to foster co-operation in research on development problems between the developed and developing regions for their mutual benefit."

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